

Notice of Allowability

Application No.

10/628,781

Applicant(s)

CHUTER, CHRISTOPHER JOHN

Examiner

Antonio A. Caschera

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 04/16/07.
2. ☒ The allowed claim(s) is/are 1-46.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. Receipt is acknowledged of a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e) and a submission, filed on 04/16/2007

Examiner's Answer

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Jensen on 06/21/07. The substance of the interview can be seen on the attached examiner-initiated interview summary form.

The application has been amended as follows:

Listing of Claims

1 – 22. (Previously Presented)

23. (Currently Amended) The method of claim 1, further comprising the steps of:

applying an imaginary light source to the enhanced image;

displaying a portion of the enhanced image to a user;

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interactively repositioning at least one of the imaginary light source and the displayed enhanced image relative to a line of sight of the displayed enhanced image to the user;
and
repeating the ~~last three~~ converting, calculating and combining steps in claim 1.

24 – 43. (Previously Presented)

44. (Currently Amended) The system of claim 27, further comprising the steps of:

applying an imaginary light source to the enhanced image;
displaying a portion of the enhanced image to a user;
interactively repositioning at least one of the imaginary light source and the displayed enhanced image relative to a line of sight of the displayed enhanced image to the user;
and
repeating the ~~last three~~ converting, calculating and combining steps in claim 27.

45 – 46. (Previously Presented)

47. (~~Withdrawn~~ Canceled)

48. (~~Withdrawn~~ Canceled)

Allowable Subject Matter

3. Claims 1-46 are allowed.

The following is an examiner's statement of reasons for allowance:

In reference to claims 1, 25, 27 and 46, the prior art of record (Kilgard, Rice and Parghi et al.) does not explicitly disclose selecting a first and a second attribute from multiple attributes, the first attribute and second attribute each having its own vertices, creating a normal map using

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at least one of the first and second attributes, the normal map having its own vertices and converting the normal map vertices and the vertices of the at least one of the first and second attributes used to create the normal into a matrix representing a tangent space normal map in combination with the further limitations of claims 1, 25, 27 and 46 respectively.

In reference to claims 2-23, 26 and 28-44, claims 2-23, 26 and 28-44 depend upon allowable claims 1, 25 and 27 respectively and are therefore also deemed allowable.

In reference to claims 24 and 45, the prior art of record (Kilgard, Rice and Parghi et al.) does not explicitly disclose selecting an attribute from multiple attributes, the attribute having its own vertices, creating a normal map derived from the attribute, the normal map having its own vertices and converting the normal map vertices and the vertices of the attribute into a matrix representing a tangent space normal map in combination with the further limitations of claims 24 and 45 respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments, see pages 19-26 of Applicant's Remarks, filed 04/16/07, with respect to prior art rejection of claims 1-46 have been fully considered and are persuasive. The prior art rejection of the claims has been withdrawn.

References Cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Sloan et al. (U.S. Patent 7,102,647)
 - Sloan et al. discloses systems, methods, and program products for real time shadowing of bump mapped surfaces using horizon mapping in computer graphics renderings.
- b. Acosta et al. (U.S. Patent 7,006,085)
 - Acosta et al. discloses a system and method for tracking physical phenomena represented within the three-dimensional volume set.
- c. Lees et al. (U.S. Patent 6,690,820)
 - Lees et al. discloses a method and system for creating a combination attribute volume by combining one or more attribute volumes into a single volume.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

aac

AAC
6/21/07

Antonio Caschera
Patent Examiner



KEE M. TUNG
SUPERVISORY PATENT EXAMINER